

Transition metal component

 $M^1$ : transition metal atom of Group 4 or Group 5 of the periodic table

m: 1 or 2

R<sup>10</sup>: hydrocarbon group having one or more heteroatoms

 $R^{11}-R^{14}$ : hydrogen atom, hydrocarbon group or the like

R<sup>15</sup>: hydrocarbon group, hydrocarbon-substituted silyl group

n: number satisfying a valence of  $\tilde{M}$ 

X: halogen atom, hydrocarbon group or the like

Organometallic component

(Organometallic compound)

Olefin living polymer

(Organoaluminum oxy-compound)

(Ionizing ionic compound)

Third component

(Carrier)

(Organic compound component)....